

ANNUAL INSPECTION REPORT  
FALL 2000  
FOR  
CLOSED RCRA HAZARDOUS WASTE UNITS  
PENUELAS, PUERTO RICO

Submitted to:  
PROTECO  
PENUELAS, PUERTO RICO

Submitted by:  
LAW ENVIRONMENTAL - CARIBE  
SANTURCE, PUERTO RICO

in association with  
LAW ENGINEERING AND ENVIRONMENTAL SERVICES, INC.  
KENNESAW, GEORGIA

August 28, 2000

*ASST*  
Nov. 14, 2000

DATE: August 28, 1999

# PROTECO

## Inspection and Maintenance Report

INSPECTION ITEM	CONDITION <sup>1</sup>			COMMENTS (Indicate Locations on Plan Sheet)
	NA	MN	IA	

<b>SECURITY CONTROL</b>				
Condition of Fence and Gates	✓			Fencing surrounding the units is in good condition. Gates were found locked and in good condition.
Condition of Signs	✓			Warning signs were visible and securely attached to fence.
Other				
<b>EROSION CONTROLS/DAMAGE</b>				
Perimeter Ditches, Trench <i>Zanja, Canal, Caneeta</i>	✓	✓		All perimeter ditches were functioning as designed and were preventing run-on and run-off from eroding or otherwise damaging the surface armor cap. The perimeter ditch north of unit 1 and south of unit 2/3 is in good condition. The perimeter ditch north of unit 2/3 is in good condition. The perimeter ditch east of units 17, 13 and 10/11 and continuing north and west of unit 9 is in good condition. The perimeter ditch west of units 9 and 12/16 is in good condition. The perimeter ditch east of unit 12/16 is in good condition except for the southern most end as it leaves the cap area. The erosion in this area of the perimeter ditch needs maintenance. The recommended repair is attached as part of this report. A small sloped area (up-slope, southeast of Unit 13; between Unit 13 and perimeter ditch located southeast of Unit 13) needs to be graded – rills and gullies were observed.
Sediment Traps		✓		There were no sediment traps proposed or constructed during the closure activities. However, where the four corrugated metal pipes pass under the access road, a sediment trap needs to be constructed to trap sediment before it enters those pipes.
Sediment Build-up		✓		Only sediment build up was described above at the inlet of the four corrugate metal pipes. See recommendation.
Culvert End-Walls <i>Alcantarilla (sewer)</i>	✓			Fair to good condition. End-wall of four corrugated metal pipes is displaying some cracking. May need maintenance in the future. Monitor condition closely during next inspection.
Brush/Trees/Debris	✓			None observed

<sup>1</sup> NA, no action needed; MN, maintenance needed; IA, immediate attention needed

DATE: August 28, 1999

# PROTECO

## Inspection and Maintenance Report

INSPECTION ITEM	CONDITION <sup>1</sup>			COMMENTS (Indicate Locations on Plan Sheet)
	NA	MN	IA	
Ponding or Wet Areas	✓			Slight ponding observed in the perimeter ditch east of unit 13. Recommend monitor condition closely during next inspection. Perimeter ditch is approximately 8 to 10 above unit 3 and approximately 25 to 30 feet east of unit 13.
Riprap <i>fondo, cemento o muros de rocas.</i>	✓			Good condition.
Other			✓	The access road that separates units 9 and 12/16 from the existing landfill operations has been improved. In constructing, the all-weather access road with bituminous concrete pavement the shoulders of the road had to be built up and this resulted in blocking the outlet of the four corrugated metal pipes. Two of the pipes are half full while the third pipe is one-third full of sediment. This needs to be corrected immediately.
<b>FINAL COVER CONDITION</b>				
Undesirable Vegetation	✓	✓		Observed PROTECO's on-going maintenance program to eradicate woody plants. Units 1, 2/3 and 10/11 are in good condition. Units 5, 9, 13, 12/16 and 17 need maintenance to eradicate woody plants. Most of the woody plants observed were less than two-feet in height.
Erosion	✓	✓	✓	Units 1, 5, 10/11, 13, 12/16 17 and most of 9 were in good condition. <i>Arroyuelo, rills, gullies, hondaneras</i> Rills and gullies were observed on the following units: 2/3, northwest corner of unit 9, and east side of south transition slope from unit 9 to unit 12/16. The rills and gullies on unit 2/3 need immediate attention as some of the gullies measured from 12 to 18 inches in depth. For the rills measured on unit 9, only those observed in the northwest corner need maintenance. For the rills observed on the east side of south transition slope, they are relatively small (3 inches in depth) and it is recommended to observe their condition during the next inspection.
Drainage <i>Desague</i>	✓			All units are draining well with positive surface flow runoff.
Cracks	✓			None observed.
Depressions/Ponded Water	✓			None observed.
Settlement	✓			None observed.
Surface Armor	✓			Good condition. Grassy vegetation is establishing on some units.

<sup>1</sup> NA, no action needed; MN, maintenance needed; IA, immediate attention needed



DATE: August 28, 1999

## PROTECO Inspection and Maintenance Report

INSPECTION ITEM	CONDITION <sup>1</sup>			COMMENTS (Indicate Locations on Plan Sheet)
	NA	MN	IA	
Burrows <i>excavate, cover, foses</i>	✓			None observed.
Other				
<b>GAS MANAGEMENT SYSTEM</b>				
Condition of Gas Vents	✓			Gas vents are in good condition. No gas measured from any of the gas vents.
Other				
<b>CAMU – LEACHATE COLLECTION SYSTEM</b>				
Depth of Leachate		✓		The leachate level was measured from the end of the outlet pipe. Thirty-seven feet and seven inches was measured from the outlet pipe to the top of the leachate. The measured level of leachate is approximately 12 feet in the CAMU.
Other				
<b>BENCHMARKS</b>				
Condition		✓		Benchmarks 2 and 3 were lost during improvements made to the access road. Benchmark 1 remains and is in good condition. Benchmarks need to be re-established near locations 2 and 3 or at alternate locations as appropriate.
Elevation Surveyed	✓			See attached survey points and elevations.
Other				
<b>OTHER OBSERVATIONS</b>				
Survey Plat	✓		? →	No up-date to survey plat is needed. No on-going changes in the configuration of the terrain and no alterations to the surface water drainage patterns were observed.
Unit 9 (CAMU)			✓	Install caps on the four, four-inch diameter access pipes installed to prevent the infiltration of precipitation.

<sup>1</sup> NA, no action needed; MN, maintenance needed; IA, immediate attention needed

DATE: August 28, 1999

## PROTECO

### Inspection and Maintenance Report

INSPECTION ITEM	CONDITION <sup>1</sup>			COMMENTS (Indicate Locations on Plan Sheet)
	NA	MN	IA	
Sediment Basin	✓			The sediment basin is being maintained by the adjacent landfill operations as part of their on-going landfill operations and in accordance with their approved Puerto Rico Environmental Quality Board permit.
Precipitation	✓			No recorded rainfall for the months of June and July. No recorded rainfall except for August 22nd when inches of precipitation was recorded at the site within a 24 hour period from Hurricane Debby. Including the rills and gullies observed, the surface armor cap has held up very well.

<sup>1</sup> NA, no action needed; MN, maintenance needed; IA, immediate attention needed

DATE: August 28, 1999

## PROTECO

### Inspection and Maintenance Report

ITEM	MAINTENANCE OR REPAIRS REQUIRED	TO BE CONDUCTED BY	DATE COMPLETED	REINSPECTED DATE/INTL.
Unit 1	No maintenance or repairs required.	PROTECO		
Unit 2/3	Repair rills and gullies.	PROTECO		
Unit 5	Maintenance needed for woody plant eradication.	PROTECO		
Unit 9	Repair rills in northwest corner and in east side of south transition slope to unit 12/16. Maintenance needed for woody plant eradication. Construct sediment trap near inlet of four corrugated metal pipes. Install caps on the four, four-inch diameter access pipes for drainage field.	PROTECO		
Unit 10/11	No maintenance or repairs required.	PROTECO		
Unit 12/16	Maintenance needed for woody plant eradication. Repair perimeter ditch at southeast corner of unit.	PROTECO		
Unit 13	Maintenance needed for woody plant eradication.	PROTECO		
Unit 17	Maintenance needed for woody plant eradication.	PROTECO		
<b>DATE OF INSPECTION:</b> <u>August 23, 1999</u>		<b>INSPECTOR:</b> <u>Steven R. Youngs</u> (print)		
		<u>Steven R. Youngs</u> (signature)		

<sup>1</sup> NA, no action needed; MN, maintenance needed; IA, immediate attention needed